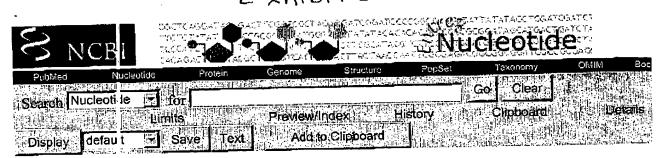
NCBI Sequence Viewer

Exhibit 1



1: NM_0014(0. Homo sapiens endo...

Related Sequences, OMIM, Protein, PubMed, Taxonomy, UniSTS, LinkOut

[gi:13027635]

PRI 16-FEB-2001 linear mRNA 2753 bp NTI 001400 LOCU\$

Homo sapiens endothelial differentiation, sphingolipid DEFINITION

G protein-coupled receptor, 1 (EDG1), mRNA.

NI I_001400 ACCESSION

MI_001400.2 GI:13027635 VERSION

KEYWORDS

SOURCE human.

ORGANISM Homo sapiens

Enkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

(bases 1 to 2753) REFERENCE

H.a.T. and Maciag, T. AUTHORS

A: abundant transcript induced in differentiating human endothelial TITLE

cells encodes a polypeptide with structural similarities to

G protein-coupled receptors

J Biol. Chem. 265 (16), 9308-9313 (1990) **JOURNAL**

9 1264425 MEDLINE

REFERENCE (bases 1 to 2753)

A1,S., Bleu,T., Huang,W., Hallmark,O.G., Coughlin,S.R. and **AUTHORS**

Goetzl, E.J.

Identification of cDNAs encoding two G protein-coupled receptors TITLE

for lysosphingolipids

FRBS Lett. 417 (3), 279-282 (1997) JOURNAL

9 1072391 MEDLINE

(bases 1 to 2753) REFERENCE

Lie, M.J., Van Brocklyn, J.R., Thangada, S., Liu, C.H., Hand, A.R., AUTHORS

Menzeleev, R., Spiegel, S. and Hla, T.

Sphingosine-1-phosphate as a ligand for the G protein-coupled TITLE

receptor EDG-1

S:ience 279 (5356), 1552-1555 (1998) JOURNAL

93155258 MEDLINE

RIVIEWED REFSEQ: This record has been curated by NCBI staff. The COMMENT

r:ference sequence was derived from AF233365.1, M31210.1.

O1 Feb 21, 2001 this sequence version replaced gi: 4503454.

Summary: The protein encoded by this gene is structurally similar

t > G protein-coupled receptors and is highly expressed in

endothelial cells. It binds the ligand sphingosine-1-phosphate with high affinity and high specificity, and suggested to be involved in the processes that regulate the differentiation of

endothelial cells. Activation of this receptor induces cell-cell

a lhesion. C)MPLETENESS: complete on the 3' end.

FEATURES

Location/Qualifiers

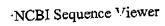
source

1..2753

/organism="Homo sapiens" /db xref="taxon:9606"

NCBI Sequence Viewer

```
/chromosome="l"
                       /map="1p21"
                       1..2753
        gene
                        /gene="EDG1"
                        /note="ECGF1; CHEDG1"
                        /db xref="LocusID: 1901"
                        /db_xref="MIM: 601974"
                        244..1392
        CDS
                        /gene="EDG1"
                        /note="edg-1; sphingosine 1-phosphate receptor EDG1"
                        /codon start=1
                        /db_xref="LocusID: 1901"
                        /db_xref="MIM: 601974"
                        /product="endothelial differentiation, sphingolipid
                        G-protein-coupled receptor, 1"
                        /protein_id="NP_001391.2"
                        /db_xref="GI:13027636"
                        IKLTSVVFILICCFILLENIFVLLTIWKTKKFHRPMYYFIGNLALSDLLAGVAYTANL
                        LLSGATTYKLTPAQWFLREGSMFVALSASVFSLLAIAIERYITMLKMKLHNGSNNFRL
                        FLLISACWVISLILGGLPIMGWNCISALSSCSTVLPLYHKHYILFCTTVFTLLLLSIV
                        ILYCRIYSLVRTRSRRLTFRKNISKASRSSEKSLALLKTVIIVLSVF[ACWAPLFILL
                        LLDVGCKVKTCDILFRAEYFLVLAVLNSGTNPIIYTLTNKEMRRAFIRIMSCCKCPSG
                        DSAGKFKRPIIAGMEFSRSKSDNSSHPQKDEGDNPET1MSSGNVNSSS"
                         427..999
                         /note="7tm_1; Region: 7 transmembrane receptor (rhodopsin
         misc fearure
                         family)"
                         937..1176
                         /note="7tm_1; Region: 7 transmembrane receptor (rhodopsin
         misc fea ure
                         family)"
                         2313
         variatio:
                         /allele="C"
                         /allele="G"
                         /db_xref="dbSNP: 1056840"
                         2587..2592
         polyA si mal
                         2733..2738
         <u>polyA ві mal</u>
                                               759 t
                                      619 g
                             707 C
                                                                                 Goetzl
    BASE COUNT
                    668 a
            1 gtc:jggggca gcagcaagat gcgaagcgag ccgtacagat cccggggctct ccgaacgcaa
    ORIGIN
           61 ctt gecetg ettgagegag getgeggttt eegaggeeet etceageeaa ggaaaageta
                                                                                   to EDG-
          121 cac aaaaage etggateact categaacea eccetgaage cagtgaagge tetetegeet
           181 cgc ctctag cgttcgtctg gagtagcgcc accccggctt cctggggaca cagggttggc
           241 accategggc ccaccagegt ecceetggtc aaggcccace gcagetcggt etetgactac
          301 gtc actatg atateategt ceggeattae aactacaegg gaaagetgaa tateagegeg
          361 gaclaggaga acagcattaa actgacctog gtggtgttca ttctcatctg ctgctttatc
initiation
   COBON 421 atc:tggaga acatetttgt ettgetgace atttggaaaa ceaagaaatt eeacegacee
           481 atgractatt ttattggcaa totggcooto toagacotgt tggcaggagt agootacaca
           541 gct lacetge tettgtetgg ggccaccacc tacaagetca etecegecca gtggtttetg
           601 cgg jaaggga gtatgtttgt ggccctgtca gcctccgtgt tcagtctcct cgccatcgcc
           661 att jageget atateacaat getgaaaatg aaactecaca aegggageaa taaetteege
           721 ctc:tcctgc taatcagegc ctgctgggtc atctccctca tcctgggtgg cctgcctatc
           781 atg jgctgga actgcatcag tgcgctgtcc agctgctcca ccgtgctgcc gctctaccac
           841 aaglactata teetettetg caccaeggte tteactetge ttetgetete categteatt
           901 ctg:actgca gaatctactc cttggtcagg actcggagcc gccgcctgac gttccgcaag
           961 aacattteea aggecageeg cagetetgag aagtegetgg egetgeteaa gacegtaatt
          1021 atc;tcctga gcgtcttcat cgcctgctgg gcaccgctct tcatcctgct cctgctggat
          1081 gtgjgctgca aggtgaagac ctgtgacatc ctcttcagag cggagtactt cctggtgtta
          1141 get; tgetca actecggeac caaccecate atttacacte tgaccaacaa ggagatgegt
          1201 oggjecttca teeggateat gteetgetge aagtgeeega geggagaete tgetggeaaa
          1261 ttc:agcgac ccatcatege eggcatggaa ttcageegea gcaaategga caatteetee
```



•					gagaccatta	tatcttctqq	aaacgtcaac
	1321	cacccccaga	aagacgaagg agaactggaa	ggacaaccca	Caccodaadc	octottact	tggtcgctgg
	1381	tettetteet	agaactggaa	getgteeace	-attempeda	ctaccagga	ggagctgctg
	1441	ccaccccagt	gtttggaaaa	aaatctctgg	geecegaceg	tantatraad	tattaatggg
	1501	caacccagag	gtttggaaaa	ggagaatacg	aacagcccgg	caacaccaaa	caacctagaa
	1561	tagagttagt	ggaggaagg9	aatgcactgg	gaagggraga	gaccaggeot	agcattotca
	1681	aget cetaaa	gggttcattt	ggcccctcct	caaagactaa	Egteeccarg	ccaectcact
	1741	tott tatota	gagetteatet	gagatgtttt	ccttcacttt	agtettaaac	ctaagt5454
	3801	gratacactt	ctgcttcttt	agggatgccc	tgtacatccc	acaccccacc	CLCCCCCCCCCC
	1001	arecasttat	ggaatgatcg	atcatctata	gcaaataggc	tatgttgagt	acgraggorg
	2161	aagedcactt	tatttaaatg	acatoostta	acttttqcaa	accaagggag	atttcttagc tatttcagaa
	2221	agc:.aaacaa	agtgaaaacc	gaatggatta	ttcccacttt	tattaatatt	tatttcagaa aagtactttt
	2281	aaai.gagtc t	aacaaatatg	acatecgece	attatatett	attatattaa	aagtactttt
	2341	tcti:gtgtga	ttcatttcaa	gcaacaacac	. gccgcaccet	tatogattt	aagtactttt tctaacccgt
				- ACTAFFCALL	. 444,644,644		
	~~43		, トナナナナナイススカ	aagaalauta	1 66688888		
	2701	ttticacata	gotttatcaa	cttttaaaca	a ttaataaact	gatttttta	נ ממט
//			•				
11							

Revised: October 24, 2001.

<u>Disclaimer | Write to the Help Desk</u> <u>NCBI | NLM | NIH</u>